CLAIMS

We claim:

1. A method of testing digital graphics data, the method comprising the steps of:

providing digital graphics data of a predetermined type having an expected characteristic to a graphics output port of a graphics system;

receiving a representation of the digital graphics data from the graphics output port;

calculating a calculated characteristic based upon the representation of the digital graphics data; and

providing the calculated characteristic to a serial interface of the graphics system.

2. The method of claim 1, wherein the expected characteristic is a calculated value based upon the predetermined type of digital graphics data.

3. The method of claim 2, wherein the predetermined type of digital graphics data includes at least one of a red, green, and blue color component.

4. The method of claim 2, wherein the predetermined type of digital graphics data includes a horizontal synchronization component.

5. The method of claim 4, wherein the predetermined type of digital graphics data includes at least one of a red, green, and blue color component.

6. The method of claim 2, wherein the predetermined type of digital graphics data includes a digital graphics vertical synchronization component.

7. The method of claim 2, wherein the expected characteristic is a circular redundancy check (CRC) value.

8. The method of claim 1, wherein the predetermined type of digital graphics data is selectable.

9. The method of claim 1, wherein

the step of receiving includes receiving the representation of graphics data at a real-time graphics rate; and

the steps of calculating and providing are performed in real time with respect to the step of receiving.

10. The method of claim 1, wherein

the step of receiving includes receiving the representation of graphics data at a rate greater than 100 MHz ; and

the steps of calculating and providing are performed in real time with respect to the step of receiving.

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11. The method of claim 1, wherein the serial interface is an I2C-type serial interface.

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12. The method of claim 1, wherein the graphics output port includes an output port for a flat panel display.

13. The method of claim 1, wherein the serial interface is associated with the graphics output port.

14. A method of testing digital graphics data, the method comprising the steps of:

receiving digital graphics data at a graphics port;

determining a characteristic value upon the digital graphics data; and

providing the characteristic value over a serial interface of the graphics port.

15. The method of claim 14, wherein the step of providing includes the graphics port being part of a digital graphics interconnect port.

16. The method of claim 15, wherein the digital graphics interconnect is based on a Digital Flat Panel interconnect standard interconnect.

17. The method of claim 14, wherein the steps of determining and providing occur in real-time with respect to the step of receiving.

18. The method of claim 17, wherein the step of receiving includes receiving graphics data at a clock rate of at least 100 MHz.

19. An apparatus for testing digital graphics data, the system comprising:

a connector to interface to a digital graphics protocol;

a graphics data analyzer module having an input coupled to the connector, and an output; and

a serial bus interface control module having an input coupled to the output of the graphics data analyzer module, and a serial data port coupled to the connector.

20. The system of claim 19, wherein the serial data port is coupled to the connector to transmit serial data based upon the digital graphics protocol.

21. The system of claim 20, wherein the digital graphics protocol is a Digital Flat Panel standard.

22. The system of claim 19, further comprising a power supply terminal to receive power from a peripheral component interface (PCI) bus.

23. A method of testing digital graphics data, the method comprising:

monitoring a serial data node of a digital graphics interface to receive a first test indicator from a graphics controller;

monitoring a graphics data node to receive a first graphics data from the graphics controller;

determining a first test result based upon the first test indicator and the first graphics data in response to receiving a first test indicator and the first graphics data; and

sending the first graphics data to the serial data node in response to determining the first test result.

24. The method of claim 23 further comprising the steps of::

monitoring the serial data node of the digital graphics interface to receive a second test indicator from the graphics controller;

monitoring the graphics data node to receive a second graphics data from the graphics controller;

determining a second test result based upon the second test indicator and the second graphics data in response to receiving a second test indicator and the second graphics data; and

sending the second graphics data to the serial data node in response to determining the second test result.